

**STATE OF CALIFORNIA
ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF PESTICIDE REGULATION**

2001 IPM Baseline Survey of School Districts

EXECUTIVE SUMMARY

In October 2000, the California Environmental Protection Agency's Department of Pesticide Regulation (DPR) retained Dennis H. Tootelian, Ph.D., to assist in developing and conducting a baseline survey of school districts in California. This was in response to the Healthy Schools Act (AB 2260) and its mandate to support voluntary integrated pest management (IPM) programs in California schools.

The overall project consisted of two phases. Phase One focused on developing a list of individuals in school districts who were responsible for pest management programs. A telephone survey was conducted in November 2000 to identify the names, titles, addresses, and telephone numbers of those individuals. Names that were obtained were then used as the population for this baseline survey.

The purposes of the Phase Two study were to obtain information on various aspects of district pest management policies and practices, and to identify resources districts might need for implementing IPM. The information obtained from this survey will assist DPR in developing materials to help school districts comply with the law and improve pest management practices. Baseline questions were also included in order to evaluate progress made by the school districts in the future.

The specific issues under study included:

- What records do school districts keep on pest management activities, and to what extent do they receive inquiries about pest management from the community?
- How serious a problem do school districts consider selected pests to be?
- What treatment activities do school districts use for ants, and how effective did they consider those activities to be?
- What treatment activities do school districts use for weeds, and how effective do they consider those activities to be?
- Do school districts use pest control businesses, and how do they contract with them for services?
- Overall, how effective do school districts consider their current pest management policies and practices to be?
- Overall, how satisfied are school districts with their current pest management policies and practices?

- How useful do school districts consider possible resources being considered by DPR to be in improving their pest management systems, and how would districts prefer to have DPR communicate with them?

METHODOLOGY FOR THE STUDY

The methodology for the survey conformed to generally accepted research practices. Adjustments in the methodology needed to achieve normal time and cost constraints were not considered significant.

Population for the Study

The population for the study was defined to be the 1,003 school districts within California. As previously indicated, all school districts within the state were contacted to identify the person most responsible for pest management. From this, a database was created which had the person's name, title, mailing address, and telephone number. All members of the population were included in this baseline survey.

Research Design

Given the nature of the study, a mail questionnaire was considered to be the most appropriate method of data collection. This approach allowed the DPR to reach respondents statewide, and to do so at a reasonable cost. The mail survey also was a very suitable means to access a group of individuals who might not have time to immediately answer questions over the telephone.

Questionnaire Design

The questionnaire consisted of 24 questions, some of which contained multiple parts. Questions generally focused on the issues identified in the INTRODUCTION section of this Summary Report. The questionnaire was developed jointly by the consultant and DPR, and approved by DPR before being used. Included with the questionnaire was a self-addressed, postage-paid business reply envelope. These were addressed such that they would be returned directly to the College of Business Administration at CSUS. Respondents were given approximately one month to respond.

Caveats

The results of any research should be used with caution and at the reader's own discretion. Every study, no matter how well constructed, contains the possibility of some degree of error. Accordingly, the reader assumes sole responsibility for the use of this information.

SUMMARY AND CONCLUSIONS

Of the 1,003 questionnaires mailed, three were returned with incorrect or otherwise no longer valid addresses. This reduced the effective mailing to 1,000 school districts. By the closure date for receiving responses, a total of 394 completed questionnaires were returned. This resulted in a 39.4 percent response rate on the effective mailout.

Based on the findings, a number of conclusions appear to be warranted. These are provided below in list form for emphasis.

- Most districts keep records of pest treatments they use. However, the great majority do not keep records of pest sightings, and even fewer keep records of the results of pest monitoring. This appears to be an area in which convenient recordkeeping systems would be beneficial. While districts do not appear to receive many inquiries from the community concerning pest issues, they may need to be prepared for them in the future.
- While the majority of districts have lists of approved pesticides, a large percentage (40.2 percent) do not. Having such a list would seem to be essential to ensuring that proper and least-toxic treatments are used to manage pests.
- Generally, districts consider weeds and gophers, and to a lesser extent, ants and yellowjackets/bees, to pose the most serious pest problems. However, there were differences among districts as to which pests posed the most serious problems for them. Accordingly, while DPR may give special emphasis in its resource materials to the pests identified above, it may need to provide resources for managing all pests included in this study. Furthermore, while some pests were considered to pose less serious problems, this does not imply that districts have no problems with them. It may be that respondents simply do not feel that these are serious matters.
- The great majority of districts have treated for ants within the last two years. Treatment tends to occur when ants are first noticed, and the most common and preferred control mechanisms are ant baits and aerosol insecticide sprays. Treatments are typically administered by outside contractors, and to a lesser extent by custodians. Generally, districts consider their current ant control methods to be somewhat or very effective. This may explain why they do not consider ants to be an especially serious pest problem. Nevertheless, because so many districts treat for ants, DPR should provide resources for controlling this pest.
- Nearly all of the districts have treated for weeds within the last two years. The most common areas for weeds are fence rows, athletic fields/playgrounds, and landscaping. Districts are divided as to when they treat for weeds. Some do so when weeds exceed some pre-established threshold, at regular intervals, or when first noticed. The most frequently used methods for treating for weeds are spot treatment with herbicides and physical controls (e.g., hand pulling, cultivating, mowing). The preferred method seems to be spot treatment with herbicides, and to a much lesser extent, broadcast treatment with herbicides. Generally, districts consider their current weed control methods to be somewhat or very effective. The fact that the vast majority of districts experience weed control problems may explain why they consider weeds to be a serious pest problem even though they are satisfied with their current treatment methods. Because so many districts do treat for weeds, and consider it a serious problem, DPR should provide resources for controlling this pest.
- Most districts hire outside pest control businesses. Contract arrangements vary considerably, with the most common being to contract for all pest management or on an as-needed basis. Since districts do contract for these services, DPR should include resources for working effectively with PCOs.

- Most districts consider their current pest management policies and practices to be very to somewhat effective, and are somewhat or very satisfied with them. Accordingly, if DPR is to be successful with encouraging school districts to adopt an IPM program, it will need to demonstrate how the program will enhance or improve upon current practices. While district practices may or may not be in compliance with the Healthy Schools Act, the fact remains that they are satisfied with their current programs and may not want to make significant changes unless they see benefits to doing so.
- All of the resources DPR plans to make available to districts to improve their current pest management systems are considered very to somewhat useful. DPR may want to focus its attention first on those that received the highest ratings: information on preventing pest problems, information on least-toxic pest management practices, information on pest management practices at other schools, and lists of products/tools for least-toxic pest management programs.

Overall, it appears that districts believe they have somewhat to very serious problems with several pests. While they generally consider their current pest management policies and practices effective, and are satisfied with them, the districts seem to be receptive to the resources DPR is considering developing for them.